

REMARKS

The Office Action dated March 30, 2004 has been received and carefully noted. The following remarks are submitted as a full and complete response thereto. Claims 1-29 are currently pending and are respectfully submitted for consideration.

Claims 1-29 were rejected under 35 U.S.C. 102(e) as being anticipated by Tello (U.S. Patent No. 6,463,537). The Official Action took the position that Tello teaches all of the elements recited in the claimed invention. Applicants respectfully submit that the presently pending claims recite subject matter that is neither disclosed nor suggested in the cited prior art. Therefore, the rejection is respectfully traversed and reconsideration is respectfully requested for the reasons which follow.

Independent claim 1, upon which claims 2-12 are dependent, recites an apparatus for enabling functionality of a component. The apparatus includes an identification module having an identification number stored therein, a hash function module in communication with the identification module, a host in communication with the identification module, a guess register in communication with the host, an encryption module in communication with the guess register, and a public key module in communication with the encryption module wherein the public key module has a public key stored therein. The apparatus also includes a comparator in communication with the encryption module and the hash function module, such that the comparator may compare a first bit string to a second bit string to generate a function enable output.

Claim 13, upon which claims 14-19 are dependent, recites a component for selectively enabling functionality of an electronic device. The component includes a means for generating an encrypted bit string, a means for acquiring a guess passcode, a hash function module in communication with an on board memory that has a predefined identification number stored therein, a means for determining if the encrypted bit string matches the guess passcode, and a means for outputting a functionality enable signal.

Claim 20, upon which claims 21-29 are dependent, recites a method for enabling functionality of an electronic component. The method includes the steps of encrypting a first bit string and a second bit string to generate a third bit string, calculating a fourth bit string, comparing the fourth bit string to the third bit string, and generating a function enable signal in accordance with the comparison.

The prior art has failed to produce enablement methods that are effective against reasonably sophisticated attackers. The claimed invention resolves the limitations of the prior art by providing, in one example, a cryptographic method wherein the secure portions of the method are implemented in electronic or computer products. More specifically, embodiments of the claimed invention implement cryptographic functions for enabling functionality of electronic/computer related components, wherein the relevant secure key related information is contained within computer hardware in a non-volatile memory device and not within a purely software driven configuration. The claimed invention also provides the ability to conduct secure functionality enablement on electronic/computer related components, wherein a public key for enabling the

component is contained onboard and utilized in conjunction with a randomly generated component identifier in order to selectively enable additional functionality of the component.

The cited prior art reference of Tello fails to disclose or suggest the elements of the claims, and therefore fails to provide the advantages discussed above.

Tello discloses a modified computer motherboard security and identification system. More specifically, Tello discloses a modified motherboard with a microprocessor based security engine, enabling and disabling circuits, memory buffer circuits, modified BIOS, modified DDL, and a smart card reader and smart cards. Upon startup of the computer, the modified BIOS takes control and allows the security engine microprocessor to look for and read from a smart card in the smart card reader that is connected to the security engine microprocessor. A unique hash number is placed in the smart card during the initial set up of the security system and a complimentary hash number is assigned to the security engine memory. During startup, a software program in the flash memory of the security engine compares the hash numbers in the smart card and the computer. If these two hash numbers are compliments, the boot up procedure is allowed to continue and access to the computer is allowed.

Applicants respectfully submit that Tello fails to teach or suggest each element of claims 1-29. An element of claim 1 is a host in communication with an identification module. Tello does not disclose a host, rather it discloses a security engine microprocessor with a secret identification number stored in its flash memory (Tello,

Column 9, lines 20-24). One of the functions of the host in the claimed invention is to determine the identification number associated with the component/network switch through communication with the nonvolatile memory via the interface. Once the host determines the identification number, it then contacts the manufacturer to receive the passcode for the component which the user wishes to enable (Specification, Page 11, lines 5-12). Therefore, the microprocessor disclosed in Tello does not correspond to the host recited in the currently pending claims.

Tello also fails to disclose a comparator in communication with the encryption module and the hash function module. In addition, Tello does not disclose comparing two bit strings, but instead discloses that a code is read from a smart card and compared to **a table of** smart card code numbers that are stored in flash memory (Tello, Column 24, lines 46-52). Thus, Tello does not disclose comparing a first bit string to a second bit string.

Another element of claim 1 that is not disclosed by Tello is generating a function enable output for the component. Tello does not mention generating a function enable output as a result of the comparison. Tello only discloses that the type of smart card can be ascertained as a result of the comparison (Tello, Column 24, lines 52-53), but does not disclose outputting a signal as a result of the comparison.

For at least those reasons, applicants respectfully submit that Tello fails to disclose or suggest critical and important elements of claim 1.

It is also respectfully submitted that claims 2-12 depend from claim 1 and therefore should be allowed for at least their dependence on claim 1, and for the specific limitations recited therein.

With respect to independent claim 13, Tello fails to suggest or disclose all of the elements recited therein. Contrary to what is asserted in the Office Action, Tello does not disclose a means for acquiring a guess passcode. The guess passcode of the claimed invention cannot be considered to correspond to the secret identification number stored in flash memory disclosed by Tello (Tello, Column 9, lines 20-24). The guess passcode recited in the current claims is transmitted by the manufacturer or other authorized party when the user desires to enable additional functions (Specification, Page 10, lines 13-17). Therefore, the guess passcode is not comparable to an identification number stored in the flash memory of the microprocessor. This is an important improvement over the prior art because it prevents sophisticated hackers from obtaining the passcode since it is not stored in the memory. As a result, Tello fails to disclose or suggest a means for obtaining a guess passcode.

Tello also fails to disclose “a hash function module in communication with an on board memory, said on board memory having a **predefined** identification number stored therein.” Rather Tello discloses that an algorithm is used to generate hash numbers from the personal information entered by the user (Tello, Column 15, lines 21-24). Consequently, the hash numbers in Tello are generated based on user input and not as a result of communication with a memory that stores a predefined identification number.

Claim 13 also recites, in part, a means for outputting a functionality enable signal. As discussed above, Tello fails to disclose or suggest generating any type of function enable output and therefore fails to anticipate this element of claim 13.

For at least those reasons, applicants respectfully submit that Tello fails to disclose or suggest critical and important elements of claim 13.

It is respectfully submitted that claims 14-19 depend from claim 13 and therefore should be allowed for at least their dependence on claim 13, and for the specific limitations recited therein.

Tello also fails to disclose or suggest elements of claim 20. Tello does not disclose calculating a **fourth** bit string as recited in claim 20, nor does Tello disclose comparing a third and **fourth** bit string. Instead Tello discloses that the security engine microprocessor compares the personal information parameter in the header and the identification number with the **same** parameter field and identification field written from the security engine flash memory (Tello, Column 38, lines 11-15). Once more, Tello also fails to disclose generating a function enable signal and merely discloses that if both items match then the decryption procedure is allowed to continue (Tello, Column 38, lines 16-17).

For at least those reasons, applicants respectfully submit that Tello fails to disclose or suggest critical and important elements of claim 20.

It is respectfully submitted that claims 21-29 depend from claim 20 and therefore should be allowed for at least their dependence on claim 20, and for the specific limitations recited therein.

As mentioned previously, the Official Action took the position that the claimed invention was anticipated by Tello. Applicants respectfully submit that Tello fails to disclose or suggest critical and important elements of the claimed invention. These distinctions are more than sufficient to render the claimed invention unanticipated and unobvious. It is therefore respectfully requested that all of claims 1-29 be allowed, and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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